Fish Conservation Strategy for Alberta

2006 - 2010

Alberta

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Minister's Message

I am pleased to introduce this updated *Fish Conservation Strategy for Alberta*, an important document that will help guide planning and priority-setting for fish management and fish conservation in our province over the next five years.

The goal of this "big picture" framework is to ensure Alberta's fisheries are managed in a sustainable way and continue to provide many benefits to Albertans. Fish are among our most precious natural resources and they belong to all of us. Many stakeholders provided input that led to the completion of this document, which certainly reflects wide public support for fish conservation.

I have often said that our land, and everything on it and in it, has given us everything we have. Fish truly provide us with many social, recreational and economic benefits, but there is great demand for this limited resource. Alberta has only about 1,500 fish-bearing streams and 1,100 lakes that contain fish, and very careful management is required to balance use by the 1,500 domestic, 200 commercial fishers and 300,000 anglers competing for fish in these waters.

The next five years will be a very significant time in Alberta's history, and the *Fish Conservation Strategy for Alberta 2006-2010* is key in helping the province plan and set priorities for managing and conserving Alberta's fisheries in the 21st century.

All Albertans share the responsibility for ensuring that fish and wildlife have a secure future in our province. I encourage you to become actively involved and help ensure that our fisheries remain healthy for our children, grandchildren and future generations.

Honourable David C. Coutts
Minister
Sustainable Resource Development

Alberta's Fisheries

Alberta has many types of aquatic habitats: small streams in the mountains and foothills; large rivers extending through the prairie, parkland and boreal regions; alpine lakes, prairie potholes and reservoirs, and large lakes of the northern boreal forest. These aquatic ecosystems contain fish populations made up of 65 species, of which 51 are native, 4 have been introduced intentionally by government agencies, and 10 have been introduced illegally or accidentally. Compared to most other provinces, and elsewhere in North America, Alberta has a relatively sparse fish fauna.

Alberta's fisheries are those populations of fish that are resources used by people, typically for domestic (aboriginal fishing for food), sportfishing or commercial fishing purposes. The fish resources of Alberta are limited in diversity and abundance by the small amount of suitable habitat, since Alberta does not have a large amount of surface water. Surveys in Alberta indicate about 800 lakes and 1,500 streams have self-sustaining sport fish populations. An additional 300 ponds are stocked regularly with trout to expand fishing and harvest opportunities.

These habitat limitations, coupled with an increasing human population, result in a very high demand on fish resources. Compared to other provinces, Alberta's ratio of demand to supply of fish is extremely high. By the mid-1990s, this demand, combined with fish-use regulations that were not very restrictive, led to declines in the number and size of fish in many populations. Introducing a number of regulations that were focused on conservation and adopting a principle of precautionary management together has helped some fisheries recover. Other fish populations will require more time to recover.

Good science is the foundation of fisheries management practices that promote recovery and sustainable use of Alberta's fish resources. Through the use of sound science and knowledge-based actions, Alberta is helping lead the way in meeting the challenge of sustainable fisheries management.

Alberta Fisheries Management Basics

Alberta has adopted a management approach that ties appropriate management of a fishery to its status. Management actions are simplified by grouping all fisheries into one of four classes of fishery status (see Figure 1) that reflect both the condition of the fish population and the degree to which we use it.

Fisheries under increasing fishing pressure typically shift from trophy quality status (like an old-growth forest) to stable, vulnerable and finally collapsed, unless properly managed. Fishing pressure refers to all types of fishing: domestic (aboriginal fishing for food), commercial and angling.

The terms stable, vulnerable and collapsed are commonly used in the scientific literature to classify population status based on a number of biological factors. It's important to understand "collapsed" does not mean that a particular fish population no longer exists. There may be a reasonable number of fish present, but still too low in number and of too few year-classes (different ages of fish) to ensure the perpetuation of that population. Collapsed populations are at a high risk of loss, and actions to protect and rebuild the adult fish population are required to reduce that risk and recover the population to a stable status.

Under the Fish Conservation Strategy, the intent is to have all populations in a healthy state—primarily stable or, in some cases, trophy quality. To achieve that state, harvest must be balanced against the ability of the population to produce fish on a sustainable basis. Management of fish for a particular level of stability (i.e., abundant medium-sized fish versus creating a trophy fishery) will include public consultation to determine the public interest in the balance of harvest versus fish size.

Figure 1 - Fishery Classification

Trophy Quality

Abundance
Catch rates are high

Size Composition
All sizes present, lots of large fish

Stable

Abundance
Catch rates are good

Size Composition
Catch rates are good, few large fish

Vulnerable

Abundance
Catch rates are fair

Size Composition
No large fish, few spawners, lots of small fish

Collapsed

Abundance
Catch rates are poor

Size Composition
Very few of any sized fish

Alberta's fisheries are managed using a variety of tools, applied within a management cycle (Figure 2) that consists of the following steps:

1. Inventory - what do we have? Assessing the productive capacity of the habitat, and the status of the fish population.
2. Planning - what is desired for the fishery? Determining what fish are available and can be harvested sustainably, and developing conservation and use plans through public consultation.
3. Applying the tools - how will we achieve what is wanted? Setting regulations in place to ensure that harvest by various users is within sustainable levels.
4. Monitoring - assessing fish harvest and population status, and evaluating success relative to goals.
5. Adapting - changing regulations, as needed, to balance population sustainability and harvest opportunities to achieve success, then beginning the cycle anew.

How frequently this cycle is repeated depends on the following:

- the biology of the species,
- the harvest or natural mortality pressure the population is under,
- the status of the population, and
- the relative priority of the fishery.

Our goal under this management cycle is to assess provincially significant fisheries at least once every 3 years, and regionally and locally important populations every 5 and 10 years, respectively. Priority will be placed on threatened or endangered species, native fishes and waters with the largest numbers of desired fish species and heavy fishing pressure.

One tool to help set priority is the *General Status of Wild Species in Alberta*, a study conducted every five years that can lead to the detailed assessment of certain species and their potential listing as threatened or endangered.

Inventories

Populations
- netting
- electrofishing
- tagging
- biological sampling

Habitat
- physical characteristics
- water quality

Harvest
- domestic
- sport
- commercial

Questionnaires
- creel survey
- catch and release
- tag returns

Interpreting Data

- results
- analysis
- identify limiting factors
- determine productive capabilities
- scientific theory and hypothesis testing
- interpretations
- conclusions
- recommendations
- reporting

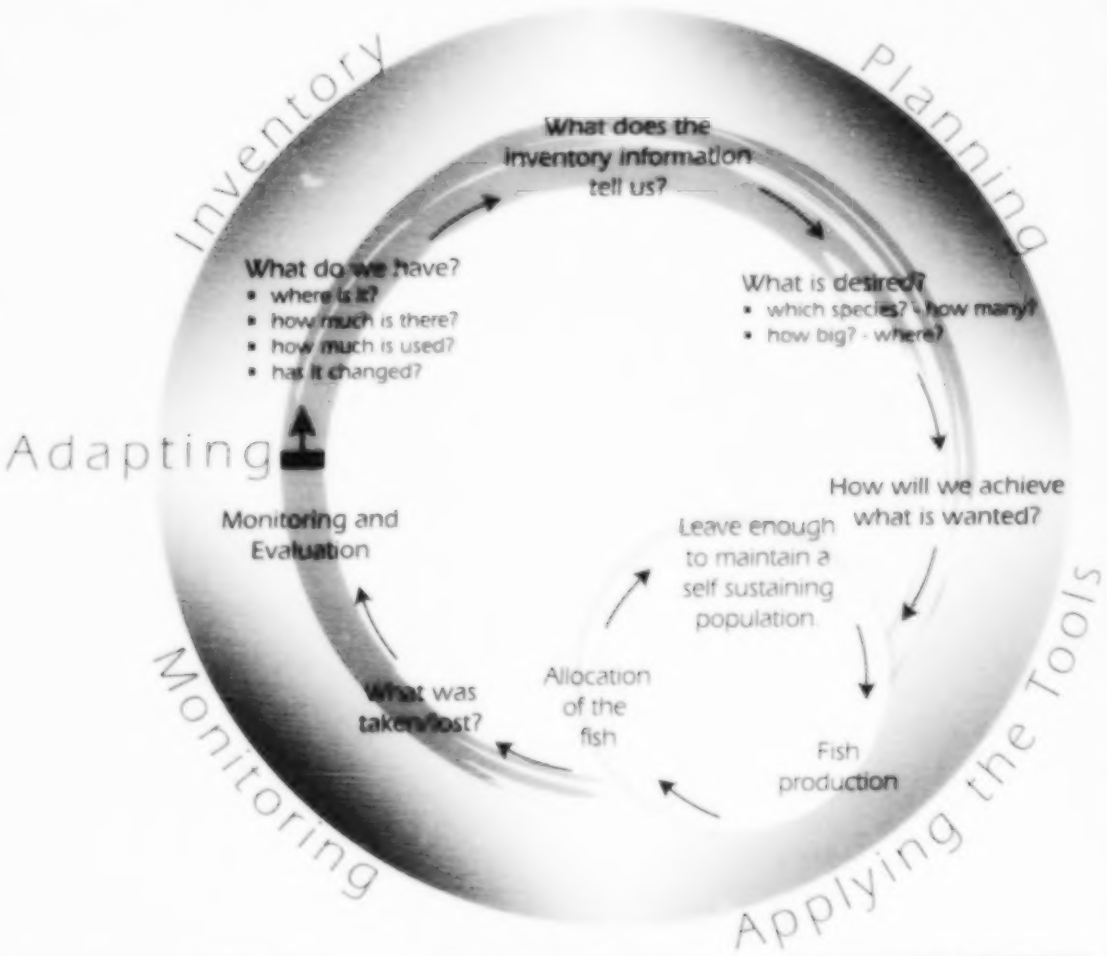
Fisheries Management Plans

- Provincial Plans
- Species Plans
- Water Body Plans

Provincial Fish and Wildlife Policy

- goals
- objectives
- strategies
- criteria

Figure 2 - The Fisheries Management Cycle



Management Techniques

Users
- education
- regulations
- enforcement

Habitat
- protection
- restoration
- development

Fish Populations
- introductions
- stocking
- remove unwanted species
- enhance food source

Monitoring and Evaluation
- users
- fish population
- habitat

Consumptive Users
- domestic fishing
- sport angling
- commercial fishing
- bait fishing
- scientific studies

Habitat/Fish Losses

Man-caused and natural, habitat alterations and declines

Photo Credit: Alberta Conservation Association

As one example of how this cycle of fisheries management can be adapted, more remote fisheries that cannot be practically monitored on a regular basis are typically managed using a precautionary management approach (avoid risk where uncertainties exist). This means harvest regulations may be more conservative, and Alberta biological data will be used to ensure several year-classes of spawning age fish remain in that water body in order to protect the sustainability of the fish population. Although this may reduce harvest opportunities somewhat, experience shows that without more intensive monitoring it's the only way to ensure declines in fish stocks are not repeated.

Being proactive in preventing declines in fish stocks was an important principle raised by the public during the public consultation processes for walleye management, northern pike management, and the East Slopes regulations review in recent decades.

For sportfishing in particular, the fisheries management cycle has encouraged the development of a small suite of angling regulation options for each species. As a result, regulations are more consistent, fishing opportunities are increased and the *Alberta Guide to Sportfishing Regulations* is less complicated than if every water body had its own regulations. Further simplification of regulations would be difficult without decreasing opportunities to harvest fish, especially given the pressure that our fisheries face. However, regulations are not set in stone.

Fisheries are dynamic and fisheries managers need to be adaptable in their use of management techniques. Fishery regulations will change as these dynamics change, and science provides better ways to assess fish populations and fish use, for better management of our renewable fish resources.

Meeting the Challenge

The challenge for fisheries management is to conserve fish populations and habitat for the benefit of Albertans in the face of increasing human population pressure and use of aquatic ecosystems.

The following vision, mission, and goal statements from the current business plan of Alberta Sustainable Resource Development are built upon the recognition of our fundamental stewardship role and collaboration with stewardship partners.

Our Vision

Alberta's lands, forests, fish and wildlife benefit present and future Albertans.

Our Mission

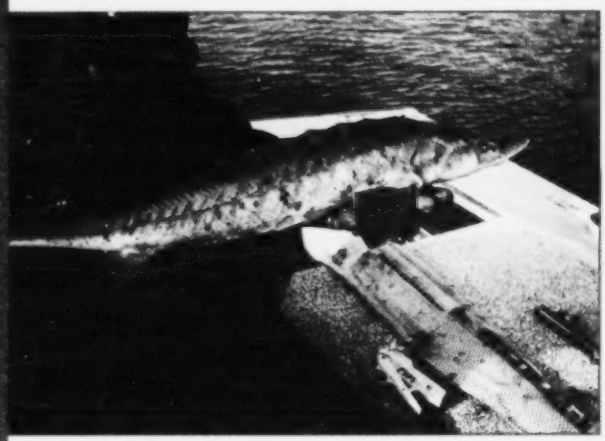
Sustainable Resource Development encourages balanced and responsible use of Alberta's natural resources through the application of leading practices in management, science, and stewardship.

Our Goal

Alberta's fish and wildlife resources and their habitats are healthy, productive and sustainable.

The sound stewardship of fish and wildlife resources facilitates consumptive (fishing and hunting) and non-consumptive recreational opportunities compatible with healthy, diverse fish and wildlife populations.

Maintenance of biodiversity and productivity of aquatic ecosystems helps to maintain healthy fish populations, which provide social and economic benefits to Albertans. Achieving sustainability of fish stocks and other aquatic resources requires that these resources, and the ecosystems that support them, be managed in such a way that their long-term viability and productivity are maintained for the benefit of future generations.



To meet this challenge, Alberta will continue to use good science and adaptive management, while following the "precautionary management principle" developed by the United Nations to address fish declines throughout the world. This consists of:

> *"...cost-effective measures and actions, including future courses of action, which ensure prudent foresight, reduce or avoid risk to the resources, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong."*
>
> -Code of Conduct for Responsible Fisheries. 1995.
> Fisheries Dept, Inland Fisheries,
> Food and Agriculture Organization,
> United Nations.

Guiding Principles

These guiding principles are integral to shaping how we will meet the challenge of managing Alberta's fish resources.

1. **No net loss of the productive capacity of habitats.**

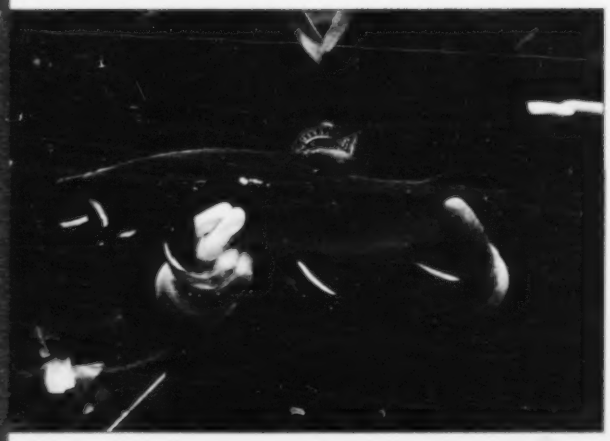
   What Does This Mean?

   Every effort needs to be made to avoid habitat losses that may diminish Alberta's ability to satisfy the demand from all users for fishing and harvest opportunities. Alberta and the Government of Canada, Department of Fisheries and Oceans (DFO), are responsible to protect existing habitat and ensure the replacement of lost fish habitat in the province of Alberta. The Alberta government supports the federal principle of "no net loss of productive habitat." However, as intensive development in the province proceeds, it is inevitable that not all losses of habitat can be compensated at the immediate site of the habitat loss, or with exactly the same type of fish community impacted. The result will be a decline in local fish production and fishing opportunities in the area of the damage that will have to be compensated in another location.

2. **Fish populations are to be maintained by natural reproduction wherever possible.**

   What Does This Mean?

   Natural reproduction is the most biologically sound and cost-effective way of maintaining fish populations. The highest priority allocation of fish resources is to the population itself, to ensure sustainability. Notwithstanding the importance of natural reproduction, Alberta will continue to support a significant and important fish culture program to create fisheries that would not exist through natural reproduction of wild fish. Where necessary, fish culture may also be used to maintain fish species threatened with extirpation, or to re-establish fish populations that have been eliminated through excessive harvest or habitat alteration.



3. The biological diversity of the fish fauna is to be maintained, and the depletion or extirpation of species, populations, subpopulations or unique strains must be avoided.

What Does This Mean?

Every species of fish in an aquatic community plays an important and integral role in the overall healthy function of the ecosystem. The diversity of a fish community is closely related to the diversity and health of habitat. Fisheries management and protection strategies will consider the fish community and aquatic ecosystem in its entirety, and will strive to maintain indigenous natural diversity and integrity in both the fish community and habitat. Where appropriate, biological diversity will be measured and will form a basis for management decisions. Higher management priority will be placed on native versus non-native fishes. Fish stocking programs will be modified to protect native fishes where necessary. Control or removal of invasive, exotic species may be done to restore ecological integrity.

4. The management of fisheries will be conducted on the basis of fundamental ecological principles and factual information.

What Does This Mean?

Good and timely information on fish stocks is fundamental to achieving fish and habitat conservation and fish-use allocation goals. Good information follows the tenets of the sound practice of ecological science. In the absence of good information, uncertainty is high and precaution must be greater. The availability of good information reduces uncertainty and enables fisheries managers to minimize precaution and allocate greater proportions of fish stocks to users. The collection of fish and fishery information precedes management decisions, and will ideally be done following a regular schedule, based on fishery type and priority. Peer review of information and proposed management actions will be done where appropriate.

5. There should be public involvement and education in the fisheries management process.

What Does This Mean?

Greater public awareness and the involvement of a knowledgeable public in fisheries management are essential to increasing public support to recover and sustain aquatic habitats and fish populations. Public involvement will be incorporated into fisheries management processes. Major initiatives will be announced in the *Alberta Guide to Sportfishing Regulations* one year before implementation. Public review will primarily occur at the local level, with additional input from the Alberta Fisheries Management Round Table committee. The final step is to seek Ministerial approval of proposed management changes.

6. The user-pay philosophy should augment the financing of the stewardship and management of fish resources.

What Does This Mean?

As with stewardship, financing the management of fisheries is a responsibility that must be shared by all, and supported directly by resource users such as anglers, resource developers and industries. From general revenues, the provincial government provides core financial support on behalf of Albertans. This core financing may be augmented by fees and levies paid

by direct resource users such as anglers, commercial fishermen and outfitters/ guides, and indirect users such as industries that affect fisheries. Proponents of industrial activities that affect fisheries are expected to pay for impact assessments, as well as any mitigation or compensation of effects.

7. **Public access to waters producing publicly owned fish should be provided and maintained.**

What Does This Mean?

Maintaining access to waters producing publicly owned fish is important for maintaining opportunities for recreational use. Although waters are generally in public ownership, surrounding lands can be held in private ownership and public access may be limited or denied. Alberta will not stock fish for recreational use into waters where there is no public access.

Goals and Objectives for Fish and Habitat Conservation

Goal 1: Habitat Maintenance

To sustain or achieve a net gain in the quality and quantity of fish habitat in Alberta. The federal Department of Fisheries and Oceans (DFO) is the primary regulatory agency for dealing with the harmful alteration of fish habitat in Alberta. The Fisheries Management Branch of Sustainable Resource Development will focus effort at the landscape level, while providing fisheries management objectives and advice to DFO. Doing so supports DFO in fulfilling its legislated task of protecting habitat at the site-specific level, in a manner that is well-integrated at the landscape level.

Achieving the Habitat Maintenance Goal:

Objective 1: Fish Habitat Protection

To maintain the productive capacity of aquatic habitats to support healthy and diverse fish resources.

Objective 2: Fish Habitat Restoration

To restore the productive capacity of fish habitats in suitable areas where natural or man-caused events have impaired that capacity.

The Fisheries Management Objectives of Sustainable Resource Development regarding habitat replacement as compensation for habitat losses that occur as a result of development are:

- Preferred habitat replacement shall be in the form of like-for-like habitat (i.e., stream for stream).
- Habitat replacement shall occur as near to the habitat loss site as possible.
- Replacement habitat must be designed and built for particular fish species.

- Replacement of habitat losses on publicly accessible lands must also be on publicly accessible lands.
- Companies required to compensate for habitat losses will be responsible for establishing a viable fishery, including future fish stocking costs at the habitat compensation site, if stocking is necessary to maintain a fishery.

Objective 3: Fish Habitat Development

To enhance fish production through intelligent habitat manipulation, where feasible and wise.

Goal 2: Fish Population Management

To ensure that native and desired introduced fish populations are maintained at satisfactory levels of abundance and distribution to meet the biological needs of fish communities, and to address the expectations of Albertans today in a manner that does not compromise the options of future generations.

Achieving the Fish Population Management Goal:

Objective 1: Species Management Planning

To develop provincial-level strategic plans for the management of priority fish species for which such plans do not yet exist, and to revise and update existing management plans.

Provincial species management plans provide a consistent framework to describe species' status and outline strategies to achieve focused, cohesive and measurable management goals and actions at the landscape and provincial scale. Management plans have been developed for walleye, northern pike, lake sturgeon, golden trout, Arctic grayling and bull trout. Priority species for new plan development and revision include cutthroat trout, lake trout, yellow perch, and bull trout.

Objective 2: Fish Production Maintenance

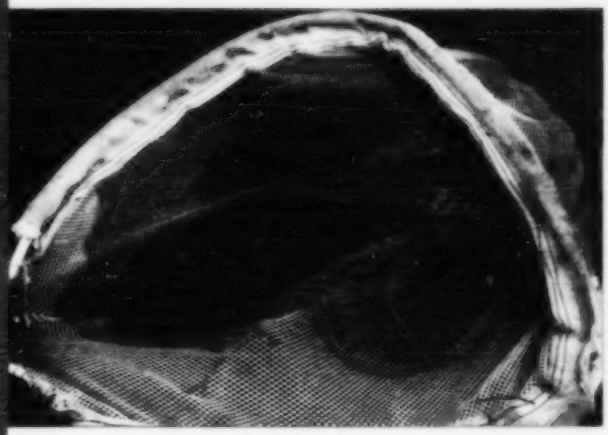
To maintain the desired abundance and diversity of native and desired non-native fish species at levels that meet conservation goals and societal expectations.

Generally, the minimum requirement is to permit fish at least two years of spawning at full maturity before they are available for harvest.

Objective 3: Fish Production Restoration

To restore diminished fish production to full production wherever possible.

Implementation of restrictive size limits, reduced bag limits, changed seasons and gear restriction to bring harvest and/or fish mortality back to sustainable levels are means of reversing overharvest problems and restoring production levels. In some cases, recovery may require more aggressive steps, such as management of other natural fish predators and removal of non-native fish through various methods, including use of piscicides. For populations that are particularly susceptible to harvest, a new licensing approach based on a limited harvest system, similar to the hunting tag draw, is being tested for its ability to balance harvest pressure with sustainable fish production.



Objective 4: Fish Production Enhancement and Development

To enhance or develop new fish production where appropriate and possible.

When considering stocking activities, emphasis has shifted from creating new fisheries to protection of native fish communities. Fish stocking will continue to provide important trout fishing opportunities in many ponds and lakes throughout the province. In addition, Sustainable Resource Development is currently preparing a plan for a reactivated walleye-stocking program over the next 5-10 years. Fish culture programs of the future will also place emphasis on native species, sterile fish and stocks that are genetically compatible with wild populations of the watershed, to eliminate the risk of native fish declines that might occur if stocked fish escape to waters containing native fish.

Goal 3: Fishing Opportunities

To maintain and provide a high diversity, quality and number of different fishing opportunities across the province, while managing harvest and use at levels that are sustainable.

One of Sustainable Resource Development's challenges is to allocate, through a public consultation process, the appropriate use or combination of uses of fish resources that are surplus to conservation needs, which result in a sharing of the resource between legitimate users and achieve a range of benefits, while still supporting fishery management objectives. To better understand who is using fish resources and harvest levels, the department will evaluate the merit of licensing all users.

The management of fisheries must follow a policy that allows harvest only when a supply of fish beyond conservation needs has been proven available. The *Fish and Wildlife Policy for Alberta* (1982) stipulates that the interim allocation priorities will be in the following descending order, until supply and demand issues are addressed on a site-specific basis through the allocation process:

1. Conservation of fish stocks;
2. Alberta Indians fishing for food on specific sites;
3. Métis people fishing on Métis Settlements;
4. Resident recreational use; and
5. Primary commercial uses (e.g., commercial fishing, guiding and tourist angling).

In addition, Sustainable Resource Development is considering the feasibility and merits of treating any losses of fish and habitat attributed to industrial activities as an allocation of the resource to industry. Reductions in fish production levels already need to be considered when determining the available supply of fish for other users.

Achieving the Fishing Opportunities Goal:

Objective 1: Fish Conservation

To maintain and restore, desired, naturally self-sustaining fish species biodiversity and numbers by taking advantage of the productive capacity of natural habitats in order to supply ecological, economic and cultural benefits to the citizens of Alberta.

Objective 2: Aboriginal Food Fishery Use

To provide for food fishing within the constraints of fish conservation and constitutionally protected rights.

Food fishing by net is conducted under the authority of a domestic fishing licence. Treaty Indians involved in sportfishing do not require a sportfishing licence at the present time, but must follow the sportfishing regulations on all waters when they are angling. In *R.v. Powley*, the Supreme Court determined that some Métis people had an aboriginal right under section 35(1) of the *Constitution Act*, 1982 to hunt for subsistence purposes and outlined the test for determining a Métis aboriginal right. As a result of the Supreme Court decision, Alberta is currently renegotiating the Interim Métis Harvesting Agreements with the Métis Nation of Alberta and the Métis Settlements General Council. At this time, Métis people require a sportfishing licence and must follow the sportfishing regulations when angling.

Objective 3: Recreational Use

To provide for recreational fishing within the constraints of fish conservation and subsistence fishing.

Sportfishing in Alberta currently operates under an open-access policy and no limitation is placed on the number of licences issued. At present, youths under the age of 16 and Alberta residents aged 65 and older are not required to hold a licence, but the goal is to eventually license all users. Licensing systems that limit the total number of fish that may be harvested from waters may be implemented. In 2006, Alberta began a two-year pilot project to use a special licensing system that limits the total number of walleye that may be harvested from three waters. In the future, it may be necessary to limit the number of anglers at some water bodies to sustain fish populations, to maintain the quality of the fishing experience and to avoid overuse of sensitive environments where some fisheries are located. Limiting angler numbers will be a last resort.

Objective 4: Commercial Use

To provide for commercial and competitive fishing opportunities, within the constraints of fish conservation, subsistence fishing and recreational fishing.

Within commercial uses, the 1982 Policy states that where conflicts occur, priority will be given to the use(s) that maximize local economic return. We are currently working with commercial net fishermen to rationalize the industry, reducing the number of licencees via licensing changes and a voluntary compensation process. The goal is to reduce the number of licence holders to under 200 people and the number of nets to about 17,000. Other commercial uses include competitive fishing events, the angler guiding industry, fishing lodges and camps, as well as collecting baitfish for sale. Regulation of these uses of the fish resources will occur as needed. In 2006, a new Competitive Fishing Events (tournaments and derbies) Licence was implemented to minimize impacts on fish populations and traditional

recreational fishing through the development of policy, standards and controls regarding competitive fishing.

Objective 5: Fish-Use Allocation

To allocate fish production, beyond conservation needs, to achieve the greatest overall benefits, using a fair process that involves stakeholders, identifies and considers users' expectations, and provides a basis for setting benefit priorities.

The allocation process will continue to be improved to meet the diverse expectations expressed by Albertans.

Objective 6: Monitoring Food Quality

To provide information to users on the quality of fish for consumption.

Contaminants in fish can affect fish health and production as well as affect the health of people eating those fish. Alberta Sustainable Resource Development, in conjunction with Alberta Health and Wellness and other government agencies, will develop a fish-quality monitoring protocol to measure contaminant levels in fish and to provide information to the public.

Goal 4: Public Involvement

To obtain input from the public on their views and expectations for the condition and availability of the fish resources of the province.

Alberta's fish are a public resource that we manage in order to meet, to the extent possible, the benefits, desired by its users. It's a requirement of government that regulation changes have some measure of public review and comment. In addressing any regulation or management changes that may impact constitutionally protected rights of aboriginal Albertans use of a food fishery, there is a legal requirement to consult with the affected parties.

Achieving the Public Involvement Goal:

Objective 1: Public Consultation

To obtain input from all the users on their views and expectations for the condition and availability of the fish resources of the province.

Local and regional groups are consulted on regulation changes and area-specific matters. An Alberta Fisheries Management Round Table committee, with representation from various user groups, has been established to meet this need. An updated process is being established for specific consultation with Indian people.

Objective 2: Education and Outreach

To provide the public with an understanding of the fish resources and fish management issues in Alberta.

There will be renewed effort to provide Albertans with information about the status and management of fish. Completion of the Bow Habitat Station in Calgary is an example of a key component in describing the relationship between fish, aquatic environments and people.

Objective 3: Public Stewardship

To encourage fish resource users and others to take the initiative to manage their activities and actions in a manner that will consider and protect fishery resources and the habitat upon which they depend.

The Role of Alberta Sustainable Resource Development

Alberta owns the fish and the waters. The *Natural Resources Transfer Agreement* (1930) transferred fish resource management from the Government of Canada to the province. Sustainable Resource Development has the mandate and responsibility within the provincial government to function as the advocate for fish resources and fisheries through the leadership of its Fisheries Management Branch (*A Fish and Wildlife Policy for Alberta, 1982*), and to oversee fisheries management throughout the province. The Fisheries Management Branch is responsible for fish population and use assessments, allocation of fish resources and regulating use. Fisheries Management is also mandated to provide information to promote the continued development of a knowledgeable public and to encourage public participation in the wise management of the fish resource.

We must strive to include the participation and commitment of all Albertans. This inclusive and comprehensive approach to fisheries management can best be described as stewardship...

> *Stewardship requires that individuals and organizations take voluntary actions to mitigate the impacts of their activities, such that fisheries resources are passed on to succeeding generations in as good or a better state of health than when they were received. This involves a commitment to ethical behaviour and a sound environmental conscience on the part of all participants in stewardship of the resources.*

Within Sustainable Resource Development, Fisheries Management Branch works as part of a community of resource managers with the following roles:

Wildlife Management Branch:

- Identifies and recovers species at risk in Alberta. This branch provides the formal link, in Alberta, to the national Species At Risk programs, through which fish species at risk receive protection.

Enforcement Field Services:

- Enforces Alberta's Fisheries Regulations.
- Increases public awareness of fisheries conservation issues.

Lands Division:

- Albertans own the land. The Lands Division manages industrial, commercial and recreational access to public land, including shorelands, and works with industry, users and the public to encourage responsible action and foster a stewardship ethic through the Respect the Land program. The Lands Division ensures that users consider and protect riparian and fisheries values when conducting activities affecting waters. They do this through land-use planning and by issuing licences, permits, and dispositions with accompanying operating conditions. The Lands Division also monitors, enforces, sets reclamation standards, and builds awareness of land-use issues.

Forestry Division:

- Protects and manages forest resources on Alberta's public land. Forest management plans and operating ground rules used by the forest industry and government include measures to maintain and protect watersheds, riparian areas, fish habitat and the aquatic environment.

We Don't Work Alone

Other government agencies, the public and industry also have important, related roles in fisheries management as follows:

The role of Alberta Environment:

- Albertans own the water. Under the authority of *The Water Act* and the *Environmental Protection and Enhancement Act*, Alberta Environment is responsible for water policy and legislation to ensure the quality and quantity of our water resources and to ensure thriving aquatic ecosystems now and in the future. The department issues licences and permits to work in or extract water, ensuring these activities are approved in consideration of fisheries protection. Alberta Environment also provides water quality information that helps fisheries management. The department leads the delivery of the Water for Life Strategy, part of which is focused on assessing the health of Alberta's aquatic ecosystems.

The role of Alberta Agriculture, Food and Rural Development:

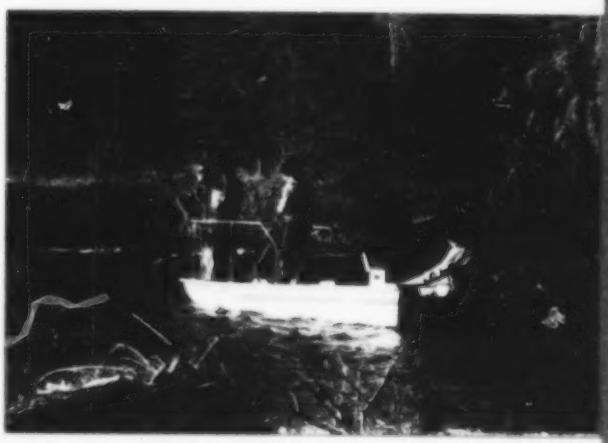
- Licenses aquaculture operations to ensure compliance with guidelines and regulations, while providing opportunities for individuals to develop private or commercial fish farming operations.

The role of Alberta Community Development:

- Manages flora and fauna, access and land use within provincial parks and protected areas, where it also enforces regulations affecting recreational and food fisheries. The Fisheries Management Branch manages fisheries within those areas, in consultation and collaboration with Community Development.

The role of Alberta Health and Wellness:

- Evaluates contaminants in fish to determine safe consumption levels and issues consumption warnings to the public as required.



The role of the Federal Department of Fisheries and Oceans and Environment Canada:

- Fisheries and Oceans Canada manages and protects fish habitat from harmful alteration in Canada pursuant to the federal *Fisheries Act*. They also share some of this responsibility with Environment Canada when issues arise under the pollution prevention provisions of the *Fisheries Act*, which are administered by Environment Canada. In discharging their duties under the *Fisheries Act* in Alberta, these two federal agencies work closely with Alberta provincial staff. Fisheries and Oceans takes into account Alberta's Fisheries Management Objectives when issuing approvals under the *Fisheries Act*. Fisheries and Oceans also has responsibilities pursuant to the *Species at Risk Act* and works with Sustainable Resource Development staff to identify and recover endangered or threatened populations of aquatic species in Alberta.

The role of aboriginal people with constitutionally protected rights:

- Participate in consultation opportunities provided to develop approaches for use of available fish resources for food. Aboriginal people can help ensure the sustainability of fisheries resources by reporting on their levels of harvest. An additional role includes sharing of traditional knowledge of past fishery conditions to help develop a picture of the history of the resource.

The role of the Alberta Conservation Association (ACA):

- The ACA has been delegated responsibility and authority by the Minister of Sustainable Resource Development to use licence fee levies for delivery of its Fisheries Program, in support of the department's provincial Fisheries Management Objectives. Their program supports the department in the determination of stock and population status, the development and implementation of management plans, and management of consumptive and non-consumptive use and users. The Fisheries Program includes the inventory and monitoring of fisheries and fish habitats to determine distribution, abundance, status, harvest and trends. Also included is the stocking of selected trout fisheries. Through the Report-a-Poacher Program, the ACA also helps reduce the loss of fish due to illegal harvest.

The role of municipal governments:

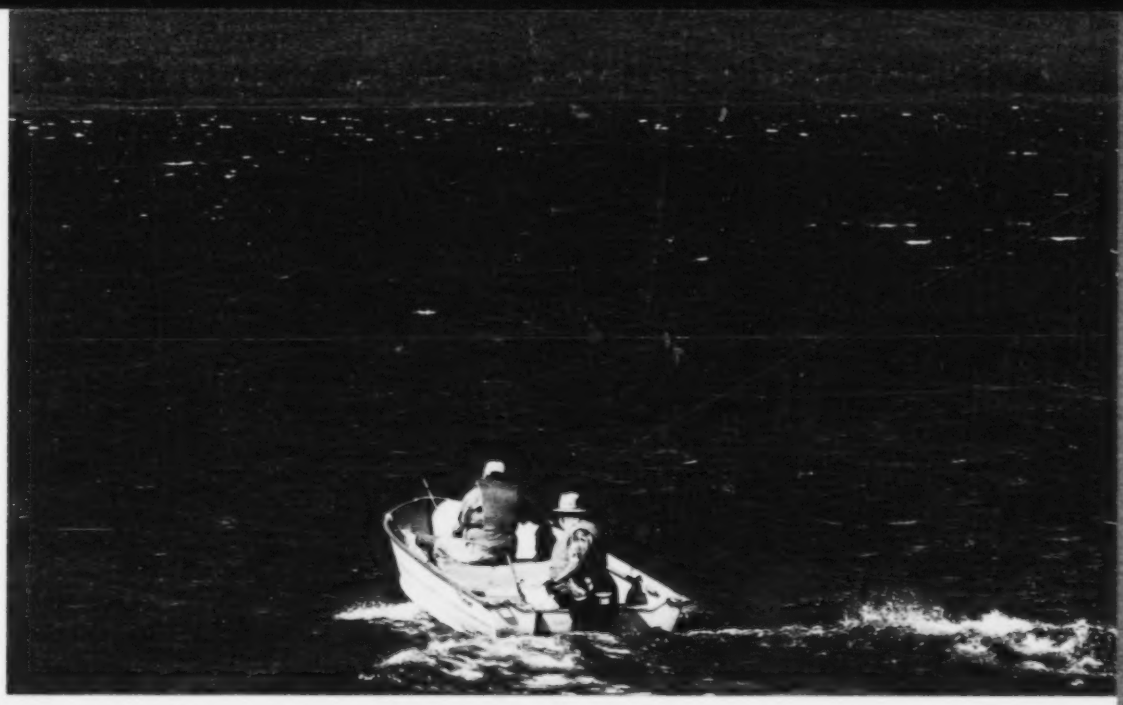
- Regulate certain land use activities that can have an impact on fish habitat. In addition these governments undertake their own activities that can have a significant impact on aquatic systems, and must tailor their activities and approvals to encourage the protection and maintenance of aquatic systems.

The role of industry:

- Obtains the required regulatory approvals for their work, and incorporates appropriate fish and habitat protection, mitigation and compensation measures to minimize effects on fisheries. Industry also works with government agencies to ensure good resource status information is available before, during and after industrial activities.

The role of the public:

- Public participation is vital in managing Alberta's fisheries. Contributing to the development and support of fisheries management objectives (by responding to invitations for public consultation), promoting and delivering stewardship programs, and complying with regulations and angling codes of ethics are additional roles of a public interested in the maintenance of fisheries resources.



Benefits from Fish Resources

The benefits Albertans expect from their fish resources are diverse and include both consumptive and non-consumptive values:

1. Indicators of ecosystem health and biodiversity - Stable communities of native fish species are an integral component of a healthy ecosystem and contribute to biodiversity. Fish communities are sensitive to environmental change, thus the diversity and size of fish populations or communities can be indicators of aquatic health, including water quality. In Alberta, the *Water for Life Strategy* recognizes fish as one of the key indicators of the health of watersheds.
2. Cultural and natural history - Fish are interesting. General public interest in fish, their habits, their aquatic environments, and simply knowing they exist and are managed, is growing along with increasing environmental awareness. Fish play a role in traditions and culture, particularly of aboriginal peoples.
3. A source of recreational opportunity - Over 200,000 licensed anglers along with about 100,000 senior or youth anglers spend over 3 million days angling annually in Alberta. Sportfishing provides an opportunity for an outdoor activity that can contribute to a healthy lifestyle for participants, one that can be shared with family and friends and helps increase awareness and appreciation for the natural environment.
4. A source of food - Fish can be an important source of food for participants in domestic and recreational fisheries, and for people who purchase fish from the commercial fishery.
5. A source of economic benefits - Expenditures associated with Alberta's recreational fisheries approach $400 million annually for goods, services and major investments. Anglers from around the world fish in Alberta. Annual sales of commercially caught fish exceed $3 million. In a few cases, fish and their habitat provide viewing attractions that can create local income from non-consumptive activities.

Commitment to Fisheries Management

Alberta is actively working and collaborating to recover and sustain healthy aquatic habitats and fish populations for the benefit of current and future Albertans. We are committed to involving all stakeholders, including aboriginal and Métis people, anglers, commercial users, industry, and the general public as our partners in ensuring healthy aquatic habitats and fish populations are a lasting legacy.

Your support, assistance and participation are greatly appreciated.